

The Dissipation Rate of Interplanetary Discontinuities: Ulysses

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The rate of occurrence of interplanetary discontinuities as a function of radial distance from the Sun and heliospheric latitude were determined for the entire Ulysses mission from launch to present. Discontinuity ties were selected by computer analyses of one minute average field vectors. High resolution field data was then used to determine discontinuity temporal thicknesses, and from minimum variance normal determinations, the spatial thicknesses. Making some simplifying assumptions, discontinuity thickness distribution will be used to determine the fractional amount missed by the selection criteria (as a function of radial distance). This information will be used to determine the true radial and heliospheric latitude gradients and thus the discontinuity dissipation rates. Potential dissipation mechanisms will be discussed.

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